

## **PROCESS AND APPARATUS FOR PREPARING A METAL ALLOY**

### **ABSTRACT OF THE DISCLOSURE**

A method and apparatus for producing a metal component from a non-dendritic, semi-solid metal alloy slurry involves the use of a graphite agitator that is functionally equivalent to conventional metal rod agitators, and has the additional advantage of having a very low surface wettability, whereby labor and expenses associated with removing a metal alloy skin formed after withdrawal of the agitator from a metal slurry is eliminated or at least substantially reduced. The invention also provides an improved process and apparatus for producing a metal component from a non-dendritic semi-solid metal slurry by transferring the slurry to a cooling vessel for subsequent cooling and raising of the solids content without agitation after the slurry has been formed with agitation in a first vessel, whereby more rapid cooling of the slurry and increased production rates are achievable.